IN THE CLAIMS

Please amend the claims as follows:

1. (original) A receiver for delivering a data sequence (a_k) at a data rate 1/T from a received sequence (r_n) sampled at a clock rate 1/Ts, asynchronous to the data rate 1/T, the receiver comprising:

- an adaptive equalizer (EQ) for delivering an equalized sequence (y_n) from said received sequence (r_n), said equalizer operating at the clock rate 1/Ts and being controlled via an equalizer's adaptation loop,
- a sampling rate converter (SRC1) for converting said equalized sequence (y_n) into an equivalent input sequence (x_k) to be provided to an error generator (21) at the data rate 1/T via a timing recovery loop,
- an error generator (21) for delivering, from said input sequence (x_k), the data sequence (a_k) and an error sequence (e_k) to be used in both loops,
- orthogonal control functionality means (40) for deriving a condition for the adaptive equalizer (EQ) to fulfill in order to decrease interference between said equalizer's adaptation loop and said timing recovery loop.

2. (original) A receiver as claimed in claim 1, wherein the control loop further comprises spatial conversion means (SI) for converting a given initially T-spaced sequence generated within the control loop into an equivalent Ts-spaced sequence for controlling said equalizer coefficient vector ($\underline{W}_n$).

3. (original) A receiver as claimed in claim 2, wherein said spatial conversion means (SI) are arranged to perform a linear interpolation.

4. (original) A receiver as claimed in claim 2, wherein said spatial conversion means (SI) are arranged to perform a nearest-neighbor interpolation.

5. (currently amended) A digital system comprising a transmitter for transmitting a digital sequence via a channel support and a receiver for extracting said digital sequence from said channel support, wherein said receiver is a receiver as claimed in ~~anyone of the claims 1 to 4~~claim 1.

6. (original) In a receiver comprising an adaptive equalizer, an equalizer adaptation method of receiving a sequence (r_n), sampled at a clock rate 1/Ts, and of delivering a data sequence (a_k) at a

data rate 1/T, the method comprising the following steps :

- an adaptive equalizing step of delivering an equalized sequence (y_n) from the received sequence (r_n) using an equalizer coefficient vector ($\underline{W}_n$) in a control loop,
- a first sampling rate converting step (SRC1) of converting said equalized sequence (y_n) into an equivalent input sequence (x_k) to be processed through an error generating step (21) at the data rate 1/T within a timing recovery loop,
- an error generating step (21) of generating, from said input sequence (x_k), the data sequence (a_k) and an error sequence (e_k) at the data rate 1/T to be used in both loops,
- a step of generating a control vector sequence ($\underline{S}_n$) from the error sequence (e_k) and the received sequence (r_n), for controlling said equalizer coefficient vector ($\underline{W}_n$),
- an orthogonal control step (40) for deriving a condition for the adaptive equalizer to fulfill in order to decrease interference between said control loop and the timing recovery loop.

7. (original) A computer program product for a receiver computing a set of instructions which when loaded into the receiver, causes the receiver to carry out the method as claimed in claim 6.

8. (original) A signal for carrying a computer program, the computer program being arranged to carry out the method as claimed in claim 6.